APPENDIX REPORT

Project No.	SHT2109065201EW	Radio Specification	Bluetooth BLE
Test sample No.	YPHT21090652004	Model No.	AS10W
Start test date	2021-10-13	Finish date	2021-10-13
Temperature	25.4℃	Humidity	38%
Test Engineer	Xiaoqin Li	Auditor	*Xiaodong Zhao*

Appendix clause	Test item	Result
A	Peak Output Power	PASS
B	Power Spectral Density	PASS
C	6 dB Bandwidth	PASS
D	99% Occupied Bandwidth	PASS
E	Duty cycle	PASS
F	Band edge and Spurious Emissions (conducted)	PASS

Appendix A：Peak Output Power

Type	Channel	Peak Output power (dBm)	Average Output power (dBm)	Limit (dBm)	Result
BT-BLE	00	4.62	4.27	≤ 30.00	Pass
	19	4.29	4.00		
	39	3.98	3.64		

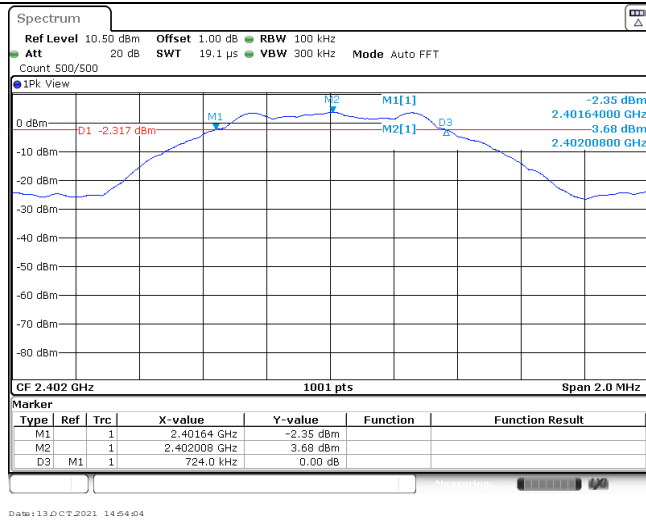|	
CH00	Spectrum Ref Level 10.50 dBm Offset 1.00 dB RBW 2 MHz Att 20 dB SWT 1 ms VBW 5 MHz Mode Auto Sweep Count 500/500 1Pk View M1 M1[1] 4.62 dBm 2.40221710 GHz CF 2.402 GHz 691 pts Span 5.0 MHz Date:13.OCT.2021 14:55:12
CH19	Spectrum Ref Level 10.50 dBm Offset 1.00 dB RBW 2 MHz Att 20 dB SWT 1 ms VBW 5 MHz Mode Auto Sweep Count 500/500 1Pk View M1 M1[1] 4.29 dBm 2.44023880 GHz CF 2.44 GHz 691 pts Span 5.0 MHz Date:13.OCT.2021 15:00:21
CH39	Spectrum Ref Level 10.50 dBm Offset 1.00 dB RBW 2 MHz Att 20 dB SWT 1 ms VBW 5 MHz Mode Auto Sweep Count 500/500 1Pk View M1 M1[1] 3.98 dBm 2.48023150 GHz CF 2.48 GHz 691 pts Span 5.0 MHz Date:13.OCT.2021 15:03:23

Appendix B：Power Spectral Density

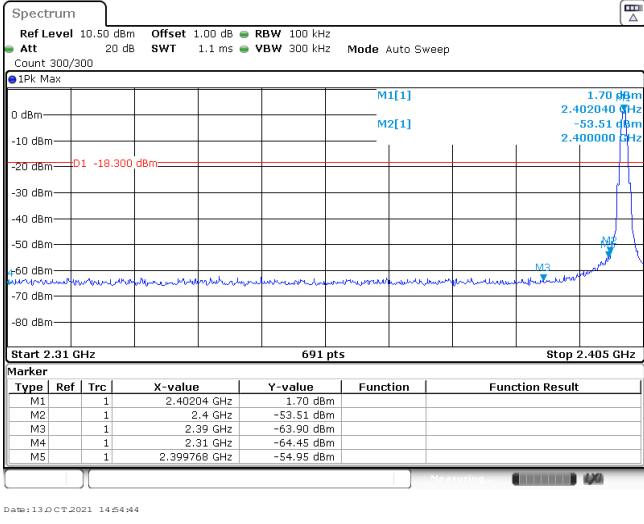| Type	Channel	Power Spectral Density(dBm/3KHz)	Limit (dBm/3KHz)	Result
BT-BLE	00	-13.53	≤8.00	Pass
	19	-13.66		
	39	-14.10		

Appendix B：Power Spectral Density
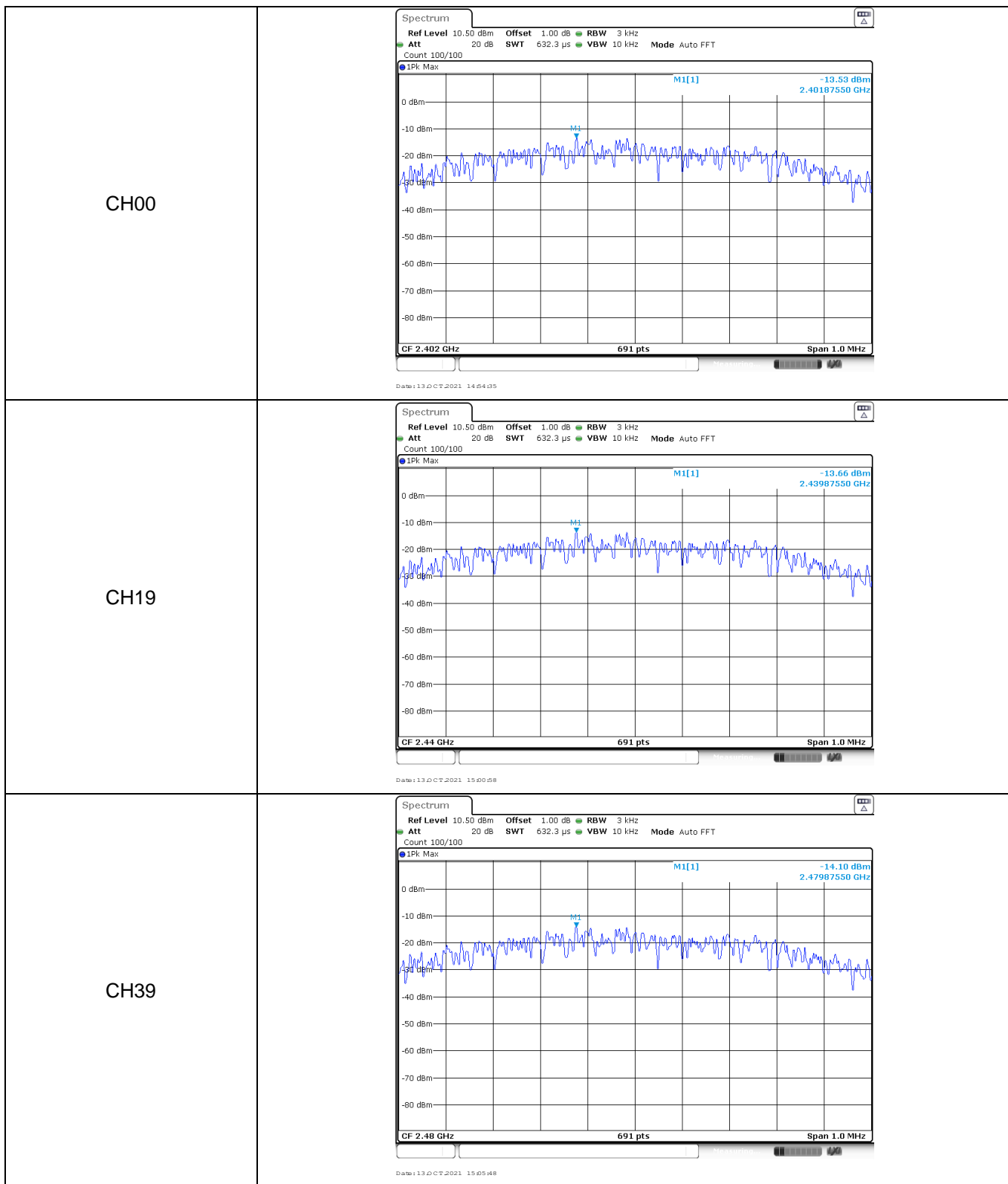
CH00	
CH19	
CH39	

Appendix C：6dB bandwidth

Type	Channel	6dB Bandwidth(kHz)	Limit (kHz)	Result
BT-BLE	00	724.00	≥500	Pass
	19	724.00		
	39	724.00		

CH00	Spectrum Ref Level 10.50 dBm Offset 1.00 dB RBW 100 kHz Att 20 dB SWT 19.1 µs VBW 300 kHz Mode Auto FFT Count 500/500 1Pk View M1[1] -2.35 dBm M2 2.40164000 GHz M2[1] D3 -3.68 dBm D1 -2.317 dBm 2.40200800 GHz CF 2.402 GHz 1001 pts Span 2.0 MHz Marker <table><tr><th>Type</th><th>Ref</th><th>Trc</th><th>X-value</th><th>Y-value</th><th>Function</th><th>Function Result</th></tr><tr><td>M1</td><td></td><td>1</td><td>2.40164 GHz</td><td>-2.35 dBm</td><td></td><td></td></tr><tr><td>M2</td><td></td><td>1</td><td>2.402008 GHz</td><td>3.68 dBm</td><td></td><td></td></tr><tr><td>D3</td><td>M1</td><td>1</td><td>724.0 kHz</td><td>0.00 dB</td><td></td><td></td></tr></table>Date:13.OCT.2021 14:54:04
CH19	Spectrum Ref Level 10.50 dBm Offset 1.00 dB RBW 100 kHz Att 20 dB SWT 19.1 µs VBW 300 kHz Mode Auto FFT Count 500/500 1Pk View M1[1] -2.69 dBm M2 2.43964000 GHz M2[1] D3 -3.33 dBm D1 -2.674 dBm 2.44000800 GHz CF 2.44 GHz 1001 pts Span 2.0 MHz Marker <table><tr><th>Type</th><th>Ref</th><th>Trc</th><th>X-value</th><th>Y-value</th><th>Function</th><th>Function Result</th></tr><tr><td>M1</td><td></td><td>1</td><td>2.43964 GHz</td><td>-2.69 dBm</td><td></td><td></td></tr><tr><td>M2</td><td></td><td>1</td><td>2.440008 GHz</td><td>3.33 dBm</td><td></td><td></td></tr><tr><td>D3</td><td>M1</td><td>1</td><td>724.0 kHz</td><td>-0.02 dB</td><td></td><td></td></tr></table>Date:13.OCT.2021 15:00:05
CH39	Spectrum Ref Level 10.50 dBm Offset 1.00 dB RBW 100 kHz Att 20 dB SWT 19.1 µs VBW 300 kHz Mode Auto FFT Count 500/500 1Pk View M1[1] -2.99 dBm M2 2.47964000 GHz M2[1] D3 -3.02 dBm D1 -2.982 dBm 2.48000800 GHz CF 2.48 GHz 1001 pts Span 2.0 MHz Marker <table><tr><th>Type</th><th>Ref</th><th>Trc</th><th>X-value</th><th>Y-value</th><th>Function</th><th>Function Result</th></tr><tr><td>M1</td><td></td><td>1</td><td>2.47964 GHz</td><td>-2.99 dBm</td><td></td><td></td></tr><tr><td>M2</td><td></td><td>1</td><td>2.480008 GHz</td><td>3.02 dBm</td><td></td><td></td></tr><tr><td>D3</td><td>M1</td><td>1</td><td>724.0 kHz</td><td>-0.03 dB</td><td></td><td></td></tr></table>Date:13.OCT.2021 15:03:07

Appendix D：99% Occupied Bandwidth

Type	Channel	99% Occupied Bandwidth(MHz)	Limit (kHz)	Result
BT-BLE	00	1.05	-	Pass
	19	1.04		
	39	1.04		
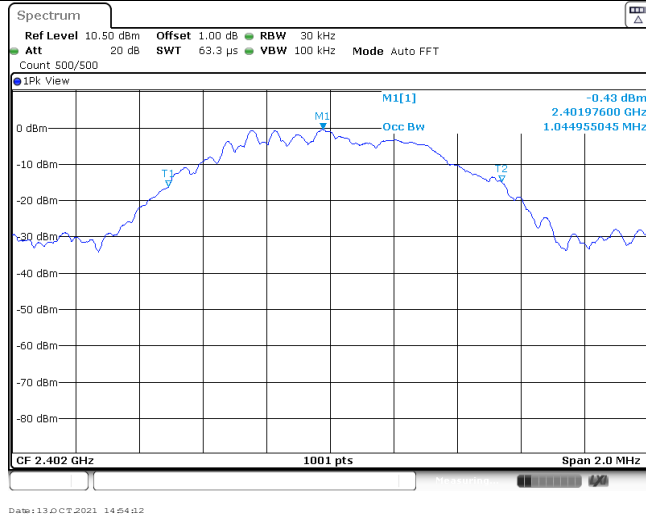
Appendix D：99% Occupied Bandwidth
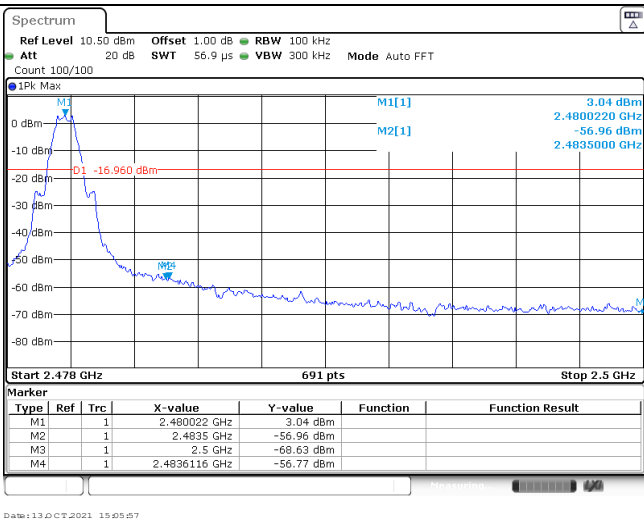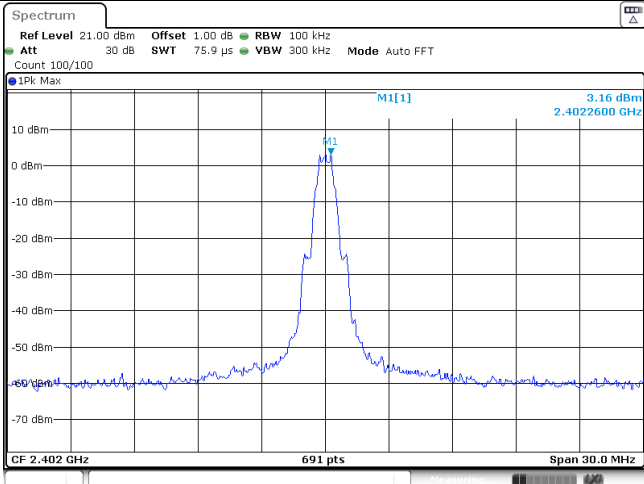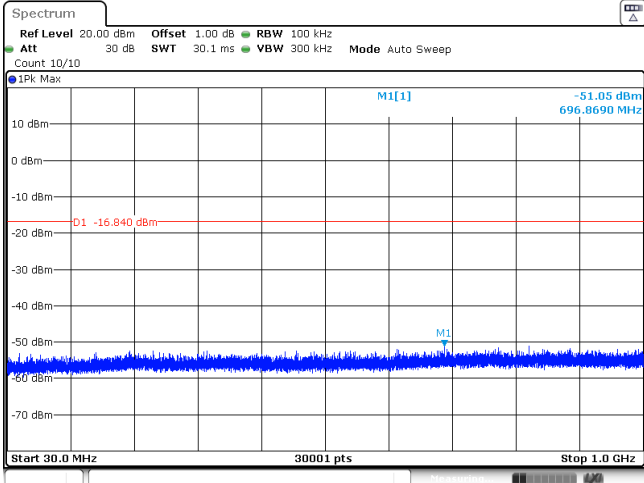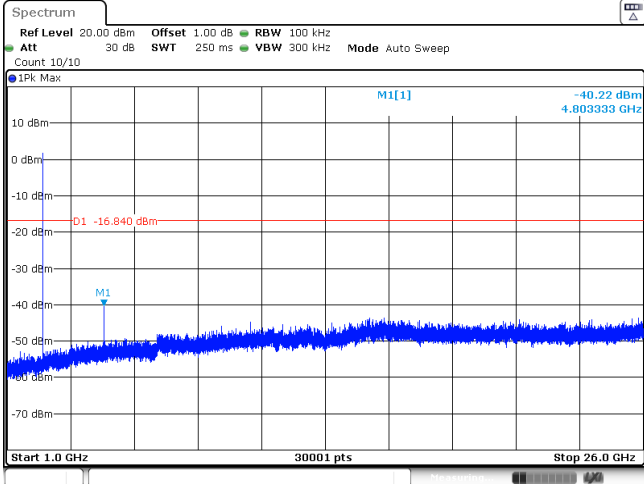
CH00	
CH19	
CH39	
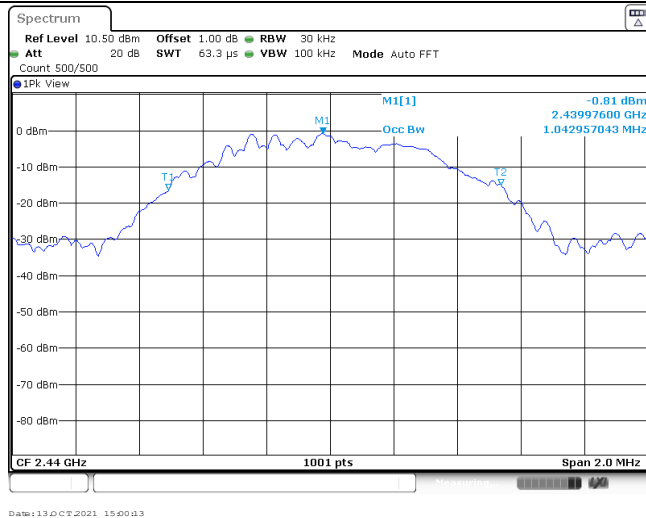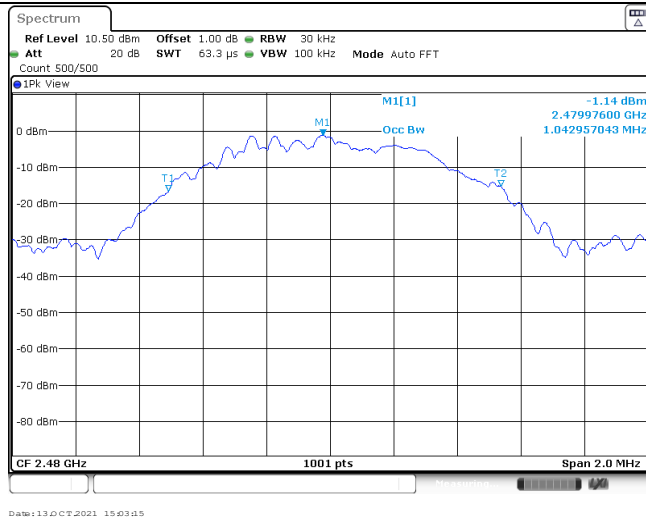
Appendix E：Duty cycle

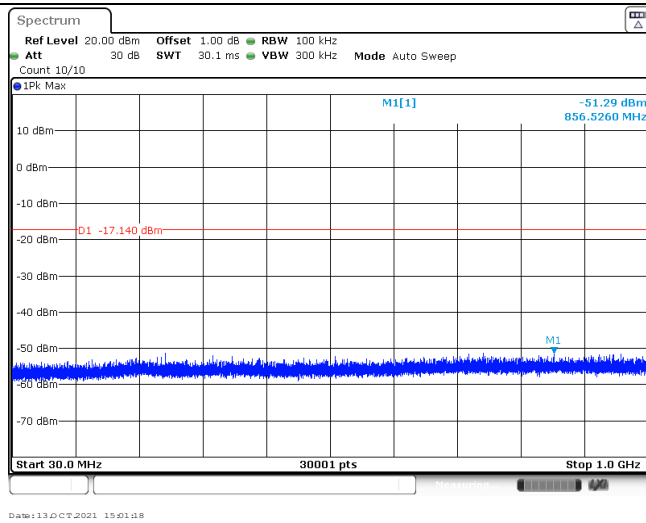| Test Frequency （MHz）	$T_{on\ time}$ for single burst (ms)	T_{period} (ms)	Duty cycle	$1/T_{on\ time}$ (kHz)
2440	0.38	0.62	61.3%	2.6
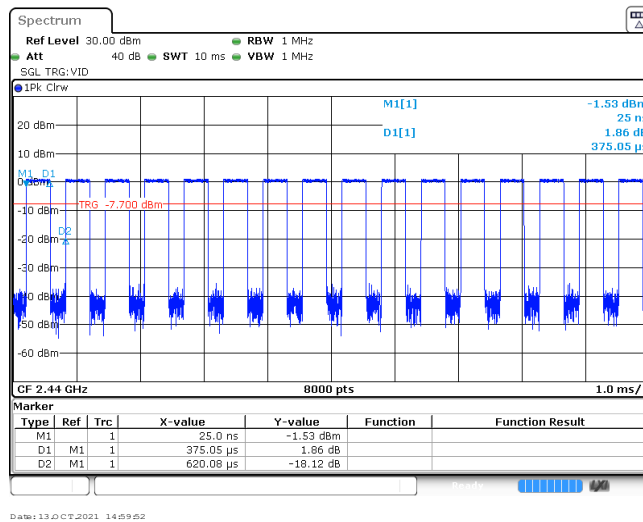
Appendix F：Band edge and Spurious Emissions (conducted)

Test Item:	Band edge
CH00	
CH39	

For CH00:

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	2.40204 GHz	1.70 dBm		
M2		1	2.4 GHz	-53.51 dBm		
M3		1	2.39 GHz	-63.90 dBm		
M4		1	2.31 GHz	-64.45 dBm		
M5		1	2.399768 GHz	-54.95 dBm		

Date:13.OCT.2021 14:54:44

For CH39:

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	2.480022 GHz	3.04 dBm		
M2		1	2.4835 GHz	-56.96 dBm		
M3		1	2.5 GHz	-68.63 dBm		
M4		1	2.4836116 GHz	-56.77 dBm		

Date:13.OCT.2021 15:05:57

Test Item:	SE
CH00 Reference level	
CH00 30MHz~1000MHz	
CH00 1GHz~26GHz	

CH19 Reference level	
CH19 30MHz~1000MHz	
CH19 1GHz~26GHz	
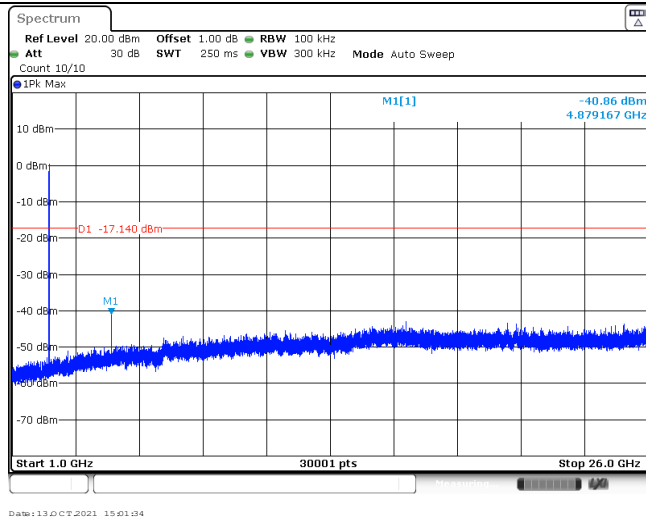
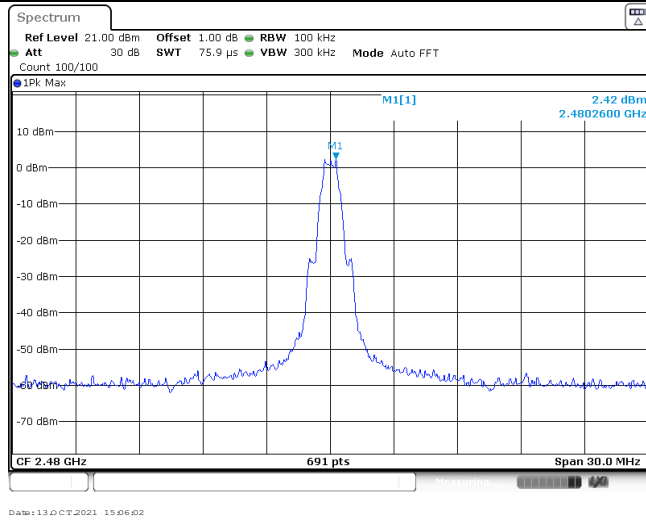|	
CH39 Reference level	
CH39 30MHz~1000MHz	
CH39 1GHz~26GHz	
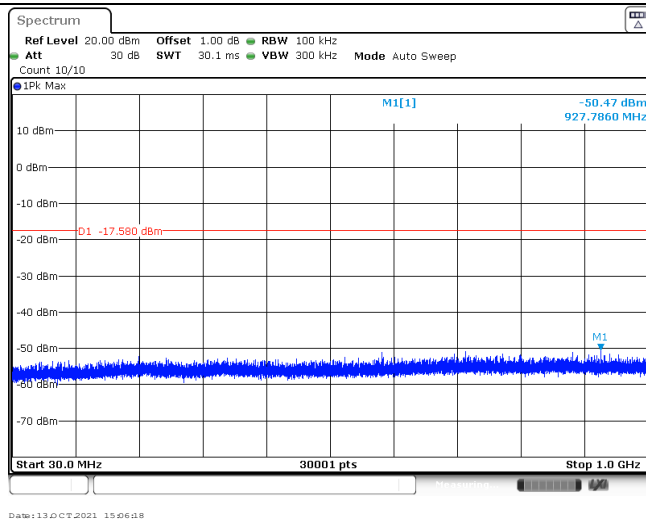
--------End of Report--------